

My background is as an engineer and manager developing high power microwave transmitters used for satellite communications, radar and Electronic Counter Measure systems.

There are currently 2 widespread methods of broadband delivery ("cable" and DSL) and it is clear that "cable" has gotten a head start. "Cable" uses coaxial cables designed for <1 GHz operation and the biggest challenge to broadband development was getting the signal to go back up the cable, instead of one way signal delivery. "Cable" now works very well and is inexpensive. I got my Internet hookup from Cox in exactly 20 hours and it cost me exactly 19.95 + tax non-recurring (for the modem) and I do not have a contract, I can cancel anytime and owe nothing. I am not sure there is a lot of money to save there.

DSL, which uses twisted pair designed for audio signals, has faced considerably greater difficulties with getting MHz of bandwidth distributed that way. While the system works, it is facing significantly increased challenges because all that is connected to the phone line was designed for audio bandwidth and affects the DSL signal unfavorably, requiring time consuming setup and fine tuning. While these difficulties have been mostly resolved, it seems today that DSL has probably lost the battle with cable as far as being able to capture the lion's share of the market.

Now, the BPL people want to try and get Mbits or more through a network designed to distribute power at 60 Hz, and somehow that should be cost competitive with existing, developed approaches which started with a medium much appropriate to the bandwidth?

While it could probably be made to work on an experimental, small scale system, there is no way that it could compete with existing approaches.

The technical difficulties facing wide deployment of that approach are such that it does not make sense to even try, and I am not even talking about the potential for interference. The cost of equipment necessary to feed into and from the power grid, and bypass the transformers will never be as low as the cost of DSL or cable equipment, so why even bother?

Finally, these power lines have typical spacing measured in feet, and will radiate most of the energy fed to them above a few hundred Hz. To get appreciable signal at the output, high power levels will have to be fed into the line, with most of that power being radiated before it gets to the user.

I hope the FCC will realize that just because there is a slim chance that someone could get an experimental network working is not sufficient reason to go along with it when it is obvious the system has such severe limitations and potential for interference to start with.

Thank you.